

ABSTRACT

A manual and automatic fluid control system and method for use in open and laparoscopic laser surgery and electrosurgery is disclosed. The system includes a manual mode along with several automatic modes which can effectuate both suction and irrigation, either individually or simultaneously. In the various automatic modes, the suction and/or irrigation is automatically activated during activation of a medical apparatus for laser surgery or electrosurgery without requiring separate activation from the surgeon or operating room staff. Several safety features for monitoring the fluid control system are also incorporated within the system such as fluid sensors for detecting the absence of irrigation fluid, pressure sensors and vacuum systems for monitoring fluid pressure, fluid sensors for monitoring fluid volume, and warning signals for detecting empty containers. All of the safety features are designed to automatically deactivate suction and/or irrigation means contained within the fluid control system upon detection of unsafe levels. Finally, specially designed suction/irrigation hand pieces are disclosed for use in connection with the fluid control system.